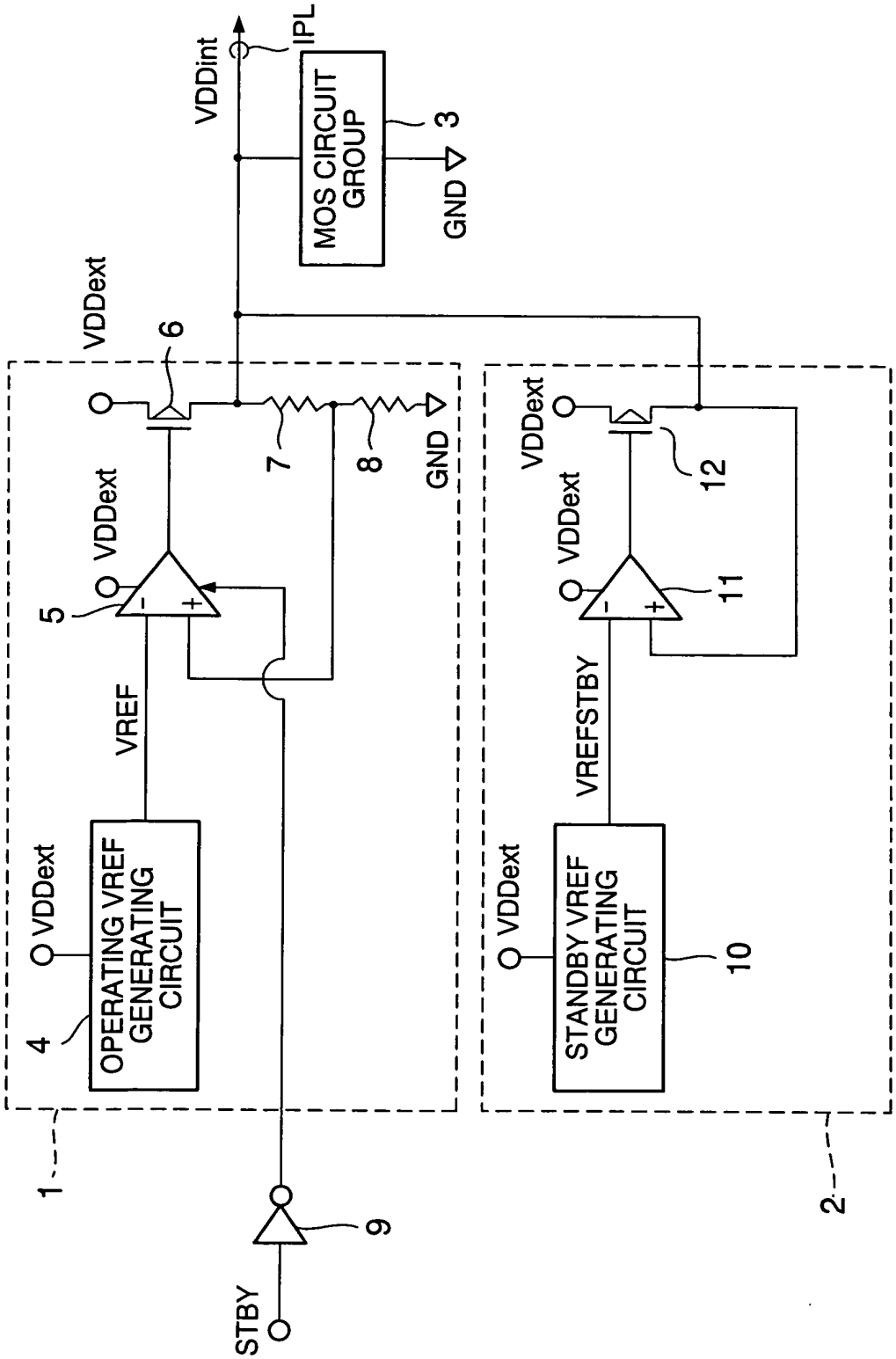
VDDint
IPL
MOS CIRCUIT GROUP
3
GND
VDDext
6
7
8
GND
VDDext
5
VREF
VDDext
4
OPERATING VREF GENERATING CIRCUIT
1
VDDext
12
VDDext
11
VREFSTBY
VDDext
STANDBY VREF GENERATING CIRCUIT
10
2
9
STBY

FIG. 1

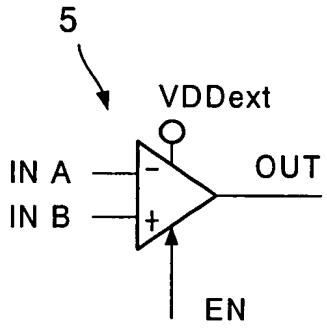
5
VDDext
IN A
IN B
OUT
EN

FIG. 2A

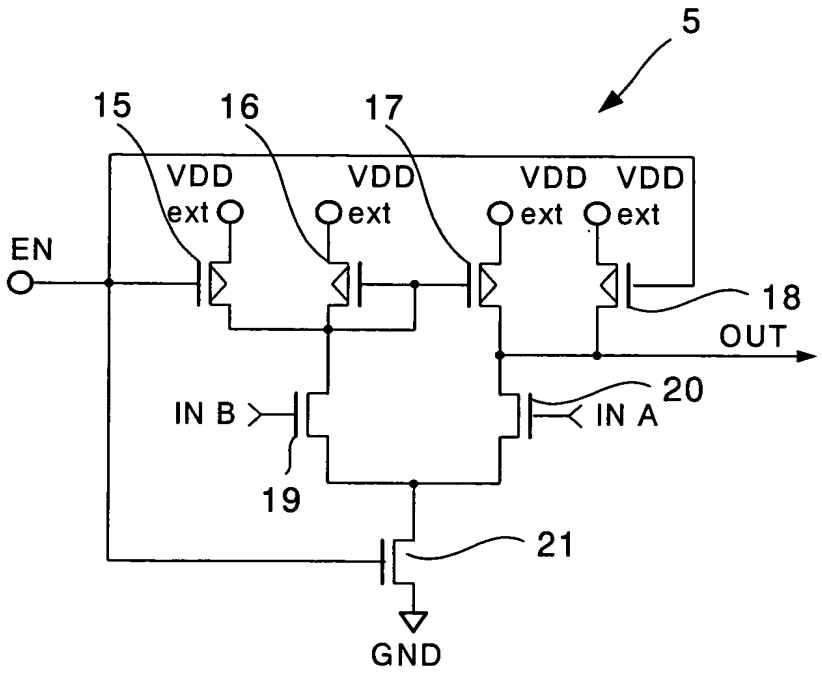
5
15
16
17
VDD ext
VDD ext
VDD ext
VDD ext
EN
18
OUT
IN B
IN A
20
19
21
GND

FIG. 2B

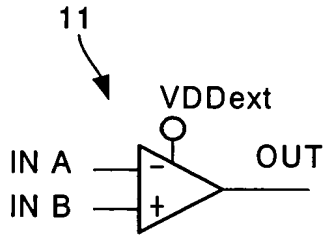
11
VDDext
IN A
IN B
OUT
-
+

FIG. 3A

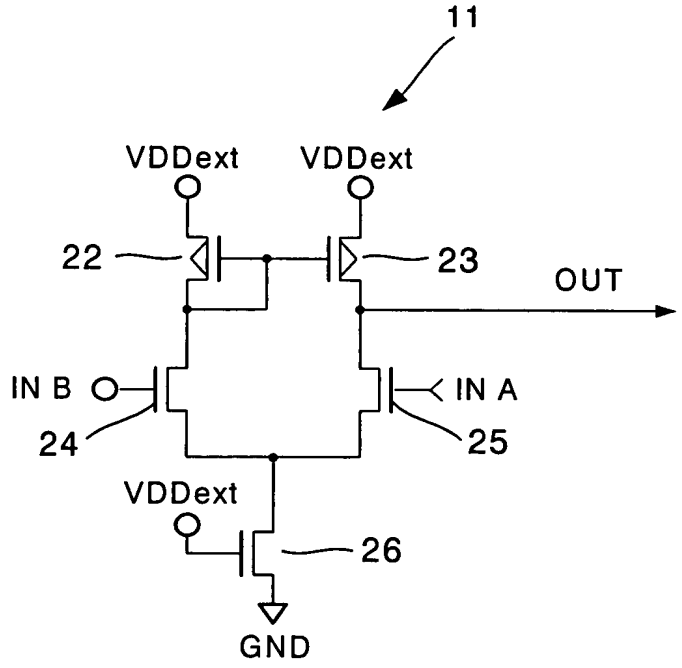
11
VDDext
VDDext
22
23
OUT
IN B
IN A
24
25
VDDext
26
GND

FIG. 3B

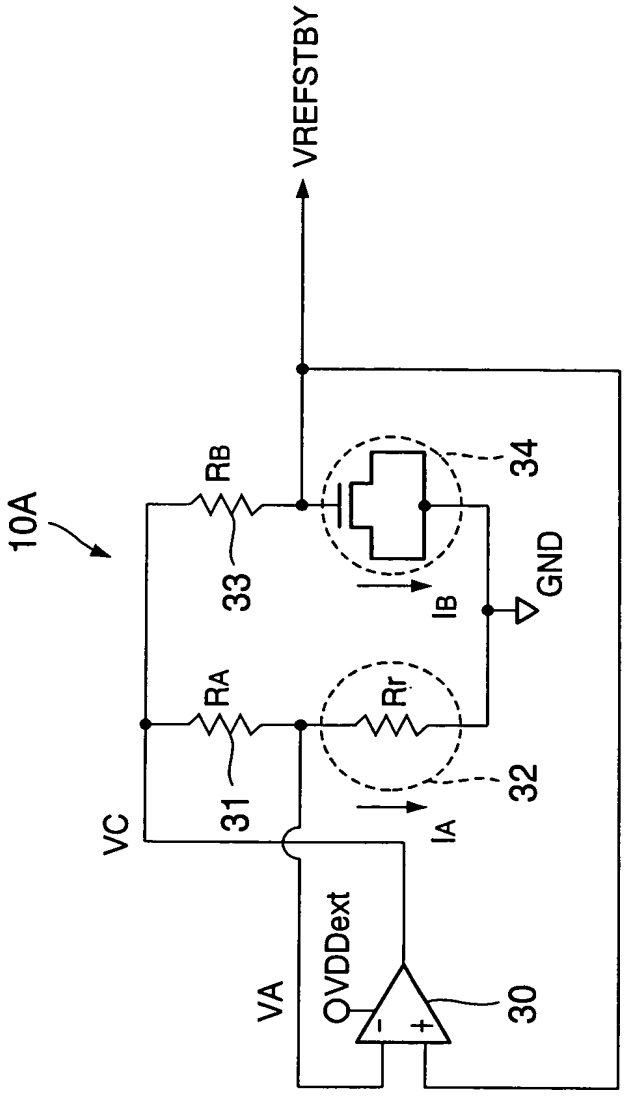

FIG. 4

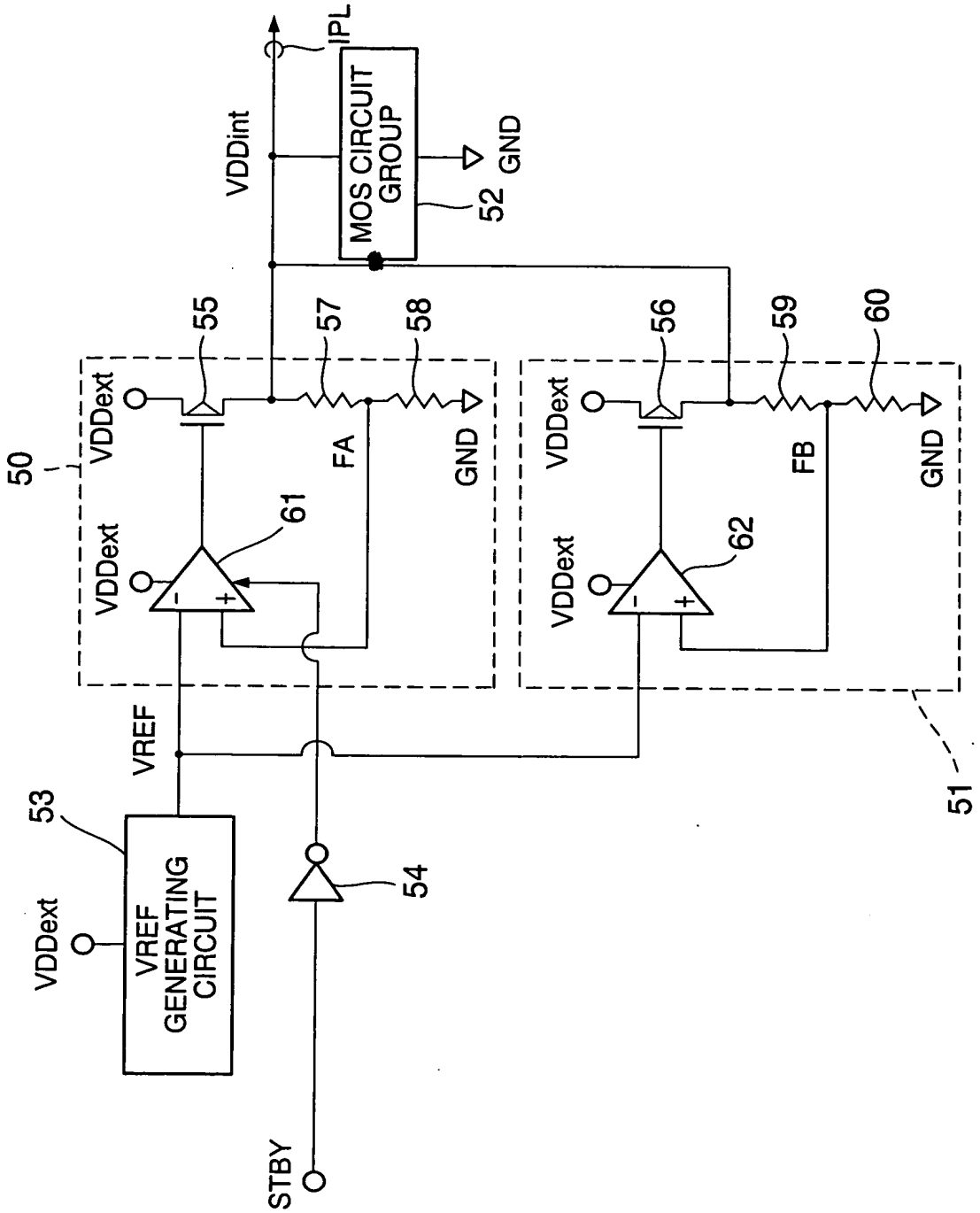
IPL
VDDint
MOS CIRCUIT GROUP
52
GND
55
57
58
56
59
60
50
VDDext
FA
FB
GND
61
62
VREF
53
VREF GENERATING CIRCUIT
54
STBY
51

FIG. 5

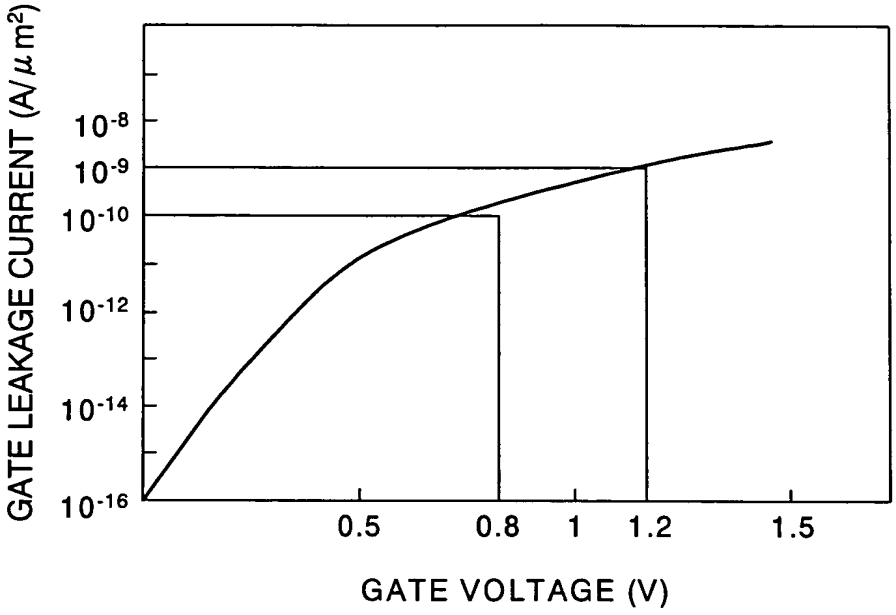
GATE LEAKAGE CURRENT (A/μm²)
10-8
10-9
10-10
10-12
10-14
10-16
0.5
0.8
1
1.2
1.5
GATE VOLTAGE (V)

FIG. 6

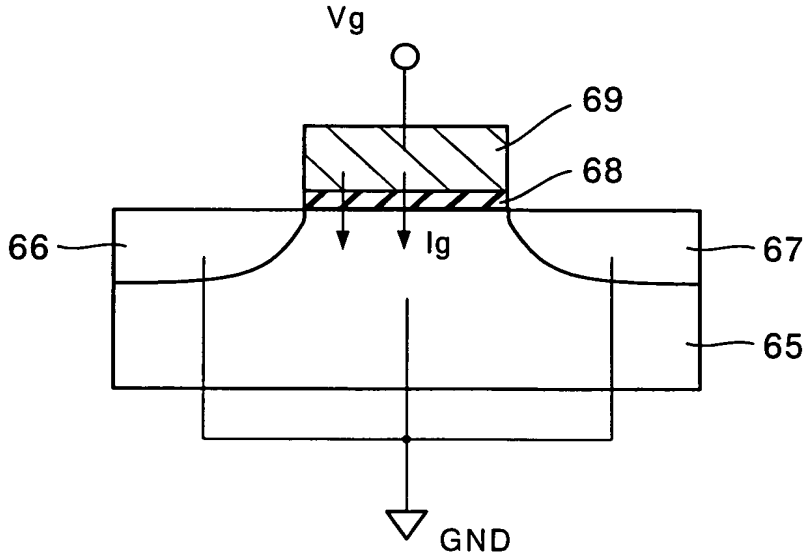
Vg
69
68
66
Ig
67
65
GND

FIG. 7

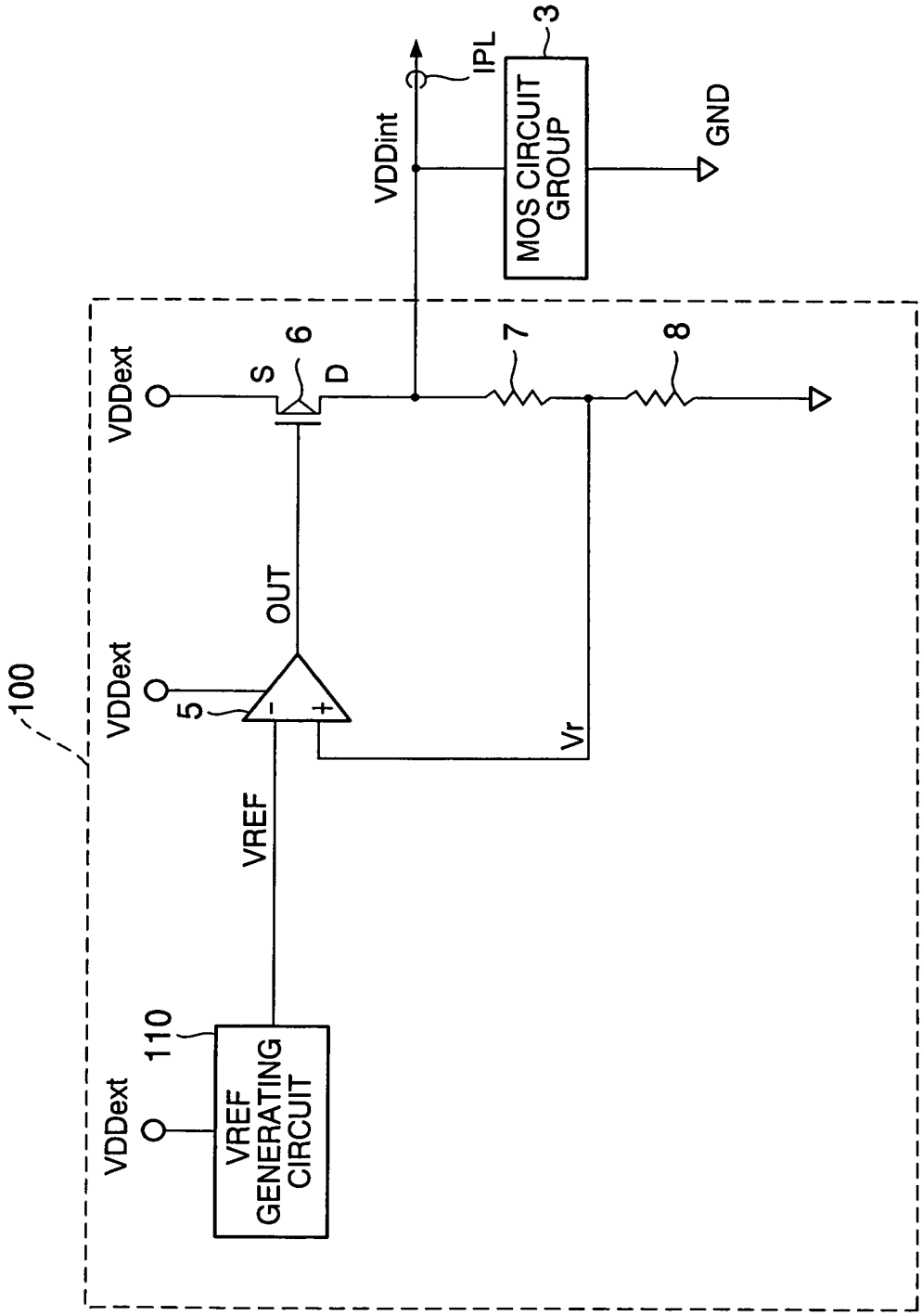
100
VDDext
VDDext
VDDext
5
6
S
D
7
8
OUT
Vr
VREF
110
VREF GENERATING CIRCUIT
VDDint
IPL
3
MOS CIRCUIT GROUP
GND

FIG. 8